REMARKS

In response to the Office Action dated September 9, 2003, claim 1 has been amended. Claims 1-14 remain in the case. Reexamination and reconsideration of the application, as amended, are requested.

The Office Action rejected claims 1-14 under 35 U.S.C. § 103(a) as being unpatentable over Ayata et al. (U.S. Patent No. 4,866,532) in view of Koike (U.S. Patent No. 5,231,519).

The Applicants respectfully traverse this rejection based on the arguments below. If **one** of the elements of the Applicant's invention is missing from or not taught in the cited references and the Applicant's invention has advantages not appreciated by the cited references, then no prima facie case of obviousness exists. The Federal Circuit Court has stated that it was error not to distinguish claims over a combination of prior art references where a material limitation in the claimed system and its purpose was not taught therein. In Re Evanega, 829 F.2d 1110, 4 USPQ2d 1249 (Fed. Cir. 1987). In Re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). MPEP 2143.

Specifically, claim 1 recites in part "...for each original pixel of the black image region having the first resolution, multiplying said pixel in two dimensions to obtain a first array of pixels, so as to represent the original pixel by a plurality of target pixels in the first array...selecting a plurality of neighboring pixels, said target pixels and neighboring pixels constituting a pixel window ..." Similarly, claim 8 recites in par "...an upscaling circuit for multiplying black pixels to form a first array of black pixels, said first array including a group of target pixels...a logic circuit for receiving said target pixels and neighboring pixels, forming a window of pixels, said logic circuit applying logical conditions to said window of pixels and identifying enhanced resolution pixels for said group of target pixels..." Claim 12 recites in part "...multiplying the number of pixels in the black pixel field to form a first pixel array...forming a sub-array of the first pixel array, the sub-array including a target group of pixels..."

In contrast, the cited references, when combined, are missing at least one material limitation of the Applicants' claimed invention. For example, the Ayata et al. reference merely discloses a system that prints a "...desired number of copies in black or in color...in accordance with the size of the original image and/or color. A red image which does not require high resolution as much as a black image is automatically

reproduced with lower resolution while maintaining high resolution at black portion of the same image." (see Abstract of Ayata et al.). Next, the Koike reference simply discloses "[A]n image processor converts a resolution of an image from an inferior resolution to a superior resolution and performs an smoothing process for smoothing jagged edges of an image by using a 3*3 pixel matrix."

These cited references, in combination, or alone, do **not** contain all of the elements of the Applicant's claimed invention. First, the Examiner stated that "...Koike teach an image processor that selects a pixel window around a target pixel..." when combining Koike with Ayata et al. However, the Applicants submit that this system in Koike is very different from the Applicant's claimed invention. Namely, instead of disclosing the Applicant's claimed "...for each original pixel of the black image region having the first resolution, multiplying said pixel in two dimensions to obtain a first array of pixels, so as to represent the original pixel by a plurality of target pixels in the first array..." and "...selecting a plurality of neighboring pixels, said target pixels and neighboring pixels constituting a pixel window...", Koike simply disclose "[A]n image signal of the standard resolution is converted into an image of the high level resolution in accordance with the color patterns shown in FIGS. 12A to 12D."

Next, as admitted by the Examiner on page 2 of the Office Action none of the cited references contain the Applicant's "...multiplying said pixel in two dimensions to obtain a first array of pixels..." Although, the Examiner stated that "...the method by Ayata et al. is an obvious modification of applicant's generating, multiplying and printing steps recited in claims 1 and 5...", the Examiner is reminded that according to well settled case law and the MPEP, all of the claimed elements of an Applicant's invention **must be considered**. Hindsight **cannot** be used to assume the presence of the Applicants' "...multiplying said pixel in two dimensions to obtain a first array of pixels...", when it is **not** disclosed in the cited references.

Since the Examiner's rejection is clearly based on hindsight, the rejection is improper. Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc., 796 F.2d 443, 230 USPQ 416 (Fed. Cir. 1986). The case law is well settled and forbids Examiners from taking a reference out of context and using the benefit of hindsight to make improper conclusions and manufacture elements that are not disclosed in the combined references, which is clearly the situation in this case. Hodosh v. Block Drug Co., Inc.,

786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986). In Re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Consequently, obviousness cannot be established by combining these references. ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). *MPEP* 2143.01

Moreover, even though the combination of Ayata et al. and Koike do **not** produce all of the elements of the claimed invention, as discussed above, these references legally **cannot** even be considered together since there is no motivation to combine the cited references. Namely, the combination of Ayata et al. with Koike produces a teaching away from the Applicants' claimed invention. Specifically, as already admitted by the Examiner on page 2 of the Office Action, Ayata et al. does **not** contain the Applicant's "...multiplying said pixel in two dimensions to obtain a first array of pixels..." and if the Examiner's interpretation of Koike were correct, the combination of Ayata et al. with Koike teaches away from the Applicants' claimed invention since the intended function of Ayata et al. would be destroyed.

In particular, the Examiner stated that "Koike teach an image processor that selects a pixel window around a target pixel...", which would render Ayata et al. inoperable when combined with Ayata et al. since Ayata et al. disclose "...[A] red image which does not require high resolution as much as a black image is automatically reproduced with lower resolution while maintaining high resolution at black portion of the same image."

However, as admitted by the Examiner, since Ayata et al. does **not** even disclose the Applicant's claimed "...multiplying said pixel in two dimensions to obtain a first array of pixels...", clearly, Ayata et al. would **not** function properly when combined with the alleged "...image processor that selects a pixel window around a target pixel..." of Koike. This is because if the pixel were **not** multiplied in two dimensions, then the original pixel would not be able to be represented by a plurality of target pixels and a plurality of neighboring pixels would **not** be able to be selected, with the target pixels and neighboring pixels constituting a pixel window, like the Applicant's claimed invention.

As **required** by the case law and the MPEP, "[I]f proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." In re

Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). MPEP 2143.01. Therefore, the proposed modification is **not** proper and one of ordinary skill in the art would not find a reason to make the proposed modification. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

Consequently, obviousness cannot be established by combining these references. ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). This **failure** of the cited references, either alone or in combination, to disclose, suggest or provide motivation for the Applicant's claimed invention indicates a lack of a prima facie case of obviousness (*MPEP 2143*).

With regard to the dependent claims, because they depend from the above-argued respective independent claims, and they contain additional limitations that are patentably distinguishable over the cited references, these claims are also considered to be patentable (MPEP § 2143.03).

Thus, it is respectfully requested that all of the claims be allowed based on the amendments and arguments. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. Additionally, in an effort to further the prosecution of the subject application, the Applicant kindly invites the Examiner to telephone the Applicant's attorney at (818) 885-1575 if the Examiner has any questions or concerns. Please note that all correspondence should continue to be directed to:

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Respectfully submitted,
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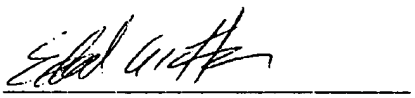

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